

- LEGEND**
- FIRE RETARDANT CABLING IN 20mm CONDUITING (GALVANISED FOR WALL AND PVC IN OTHER) - USE A SINGLE LOOP INSTALLATION FOR THIS SYSTEM
 - ADDRESSABLE PHOTO-ELECTRIC FIRE DETECTOR (SMOKE DETECTION) - INSTALLED UNDER CEILING/SOFFIT ETC
 - ADDRESSABLE PHOTO-ELECTRIC FIRE DETECTOR (SMOKE DETECTION) - INSTALLED AT HIGH LEVEL
 - ADDRESSABLE PHOTO-ELECTRIC FIRE DETECTOR (HEAT DETECTION) - INSTALLED UNDER CEILING/SOFFIT ETC
 - ADDRESSABLE PHOTO-ELECTRIC FIRE DETECTOR (SMOKE DETECTION) - USED FOR LIFT SHAFTS ETC
 - ADDRESSABLE ALARM SIREN
 - ADDRESSABLE ALARM SIREN WITH FLASHING STROBE
 - ADDRESSABLE BREAK GLASS UNIT.
 - ADDRESSABLE FIRE CONTROL PANEL (4 LOOP) (INCORPORATING BREAK GLASS UNIT, BUZZER, SILENCE BUTTON & MIMIC PANEL)
 - ADDRESSABLE FIRE CONTROL PANEL (SILENCE BUTTON & MIMIC PANEL)
 - INDICATES ZONES
 - INDICATES FIRE DETECTION CAPACITY/LIMITATIONS

Detector Spacing Requirements

POSITION OF DETECTORS AS SHOWN ON DRAWING ARE FOR REFERENCE PURPOSES ONLY. FINAL POSITION OF DETECTORS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION. ENSURE THAT ALL DETECTORS ARE NEARLY POSITIONED AND INSTALLED IN THE ROOMS E. ARCHITECTICAL CO-ORDINATED WITH ALL SERVICES. PLEASE TAKE THE FOLLOWING REQUIREMENTS/SPECIFICATIONS INTO CONSIDERATION IN GENERAL, WHERE ONLY ONE DETECTOR IS REQUIRED IN A ROOM, THE DETECTOR SHOULD BE PLACED AS CLOSE TO THE CENTRE OF THE CEILING AS POSSIBLE.

IF A CENTRE LOCATION IS NOT POSSIBLE, IT MAY BE PLACED NO CLOSER THAN 100mm FROM THE WALL.

AVOID PLACEMENT NEAR FLUORESCENT LIGHT FIXTURES. DETECTORS MUST BE INSTALLED AT LEAST 300-500mm AWAY FROM LIGHT FIXTURES.

PLACEMENT OF DETECTORS NEAR AIR-CONDITIONING/INCOMING AIR VENTS MUST BE AVOIDED. THE DETECTORS MUST BE INSTALLED NOT CLOSER THAN 1000mm AWAY FROM THESE SYSTEMS.

- General Installation Notes**
1. ALL FIRE DETECTION INSTALLATIONS TO COMPLY WITH SANS 10139 AND SANS 10400 REGULATIONS.
 2. ENSURE THAT ALL COMPONENTS ARE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS.
 3. REFER TO THE DETAILED SPECIFICATION DOCUMENTATION FOR FURTHER INFORMATION, IF REQUIRED.
 4. FIRE DETECTOR SPECIALIST TO ENSURE THAT THE INSTALLATION OF COMPONENTS IS CO-ORDINATED WITH OTHER SERVICE PROVIDERS TO PREVENT CLASHES.
 5. FIRE ALARM CONDUITS IN WALLS TO BE GALVANISED STEEL. ALL OTHER FIRE ALARM CONDUITS TO BE PVC. ALL CONDUIT INSTALLED BY ELECTRICAL CONTRACTOR.

- EQUIPMENT BASIC SCHEDULE (REFER TO DETAILED SPECIFICATION)**
1. FIRE CONTROL PANEL - ANALOGUE ADDRESSABLE 1 - 4 LOOP (REFER TO DETAILED SPECIFICATION) COMPLETE WITH POWER SUPPLY AND BATTERIES FOR 72 HOUR AUTONOMY.
 2. POINT DETECTORS - ADDRESSABLE (OPTICAL/HEAT) MULTI CRITERIA TYPE FIRE DETECTION NOTES:
 3. MAX FLOOR AREA PER ZONE 2000 m²
 4. EACH DEVICE INTERROGATED MINIMUM 30 TIMES PER MINUTE.
 5. FIRE DETECTION SYSTEM TO BE PROGRAMMED FOR SWITCH OFF DURING WORKING HOURS ONLY (TO BE CONFIRMED).
 6. BATTERY BACKUP TO BE SUFFICIENT TO MAINTAIN THE SYSTEM (INCLUDING 30 MINUTES FOR SIREN AND STROBE) FOR MINIMUM 72 HOURS. REFER DETAILED SPECIFICATION.
 7. ALL DETECTOR CIRCUIT WIRING MUST BE PHYSICALLY SEPARATE FROM ALL OTHER CIRCUITS.
 8. ALL FIRE DETECTION COMPONENT WIRING TO BE FULLY FIRE RETARDANT CABLE. REFER DETAILED SPECIFICATIONS (1mm NOT 0.8mm) (MAXIMUM LOOP LENGTH 1 km).
 9. LINE ISOLATORS TO BE INSERTED INTO THE LINE/LOOP AT REGULAR INTERVALS (I.E. A LINE ISOLATOR AFTER EVERY 25 DEVICES) (MAXIMUM LOOP LENGTH 1000 M).
 10. A MAXIMUM OF 43 LOOP SOUNDERS ARE TO BE INSTALLED PER LOOP IF ADDITIONAL SOUNDERS ARE INSTALLED ON THE LOOP ENSURE THAT A SEPARATE 24 VOLT SUPPLY IS PROVIDED.
 11. ALL FIRE ALARM CONDUITS ARE TO BE CONNECTED TO THE WIREWAY TRUNKING (PROVIDED) IN CEILING VOIDS (REFER TO ELECTRICAL DRAWINGS).
 12. FIRE ALARM CONDUITS IN WALLS TO BE GALVANISED STEEL. ALL OTHER FIRE ALARM CONDUITS TO BE PVC. ENSURE PROPERLY SECURED WITH UPVC SADDLES EVERY 2 m. ALL CONDUIT INSTALLED BY ELECTRICAL CONTRACTOR.
 13. UNLESS OTHERWISE SHOWN, ALL FA OUTLET BOXES ARE STANDARD ROUND CONDUIT BOXES (60.3mm DIA TO SANS 160) INSTALLATION BY ELECTRICAL CONTRACTOR. 3.1) 75 X 75 BOXES SHALL BE STANDARD BRITISH SWITCH BOXES. 3.2) 150 X 150 BOXES SHALL BE 50mm DEEP STANDARD ADAPTABLE BOXES.
 14. LOW LEVEL MAGNETIC DOOR HOLD-BACK OUTLETS TO BE MOUNTED AT 700mm AFL AND 150mm FROM END OF DOOR SWING, UNLESS OTHERWISE INDICATED.
 15. REFER TO NAME SPACE DATA SHEETS FOR EXACT DIMENSIONED LOCATION OF FIRE ALARM PANEL AND ALARM POINT AT RECEPTION AREAS ETC. (IF APPLICABLE).
 16. ALL FIRE DETECTION EQUIPMENT/CONDUIT TO BE CO-ORDINATED.
 17. RELAYS TO BE INSTALLED AND CONNECTED TO FAN CONTROL CONTROLS IN EACH ELECTRICAL DISTRIBUTION BOARD.
 18. COMMUNICATIONS LINK TO BE ADDED TO LOCAL FIRE DEPARTMENT.

REV	DATE	REVISION DETAILS
00	13.10.2022	PRELIMINARY DESIGN
01	15.01.2023	DRAWING REVISED

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THE MASTER IS HELD AT ELTEX ENGINEERING SERVICES AND BEARS THE ORIGINAL SIGNATURE OF APPROVAL.

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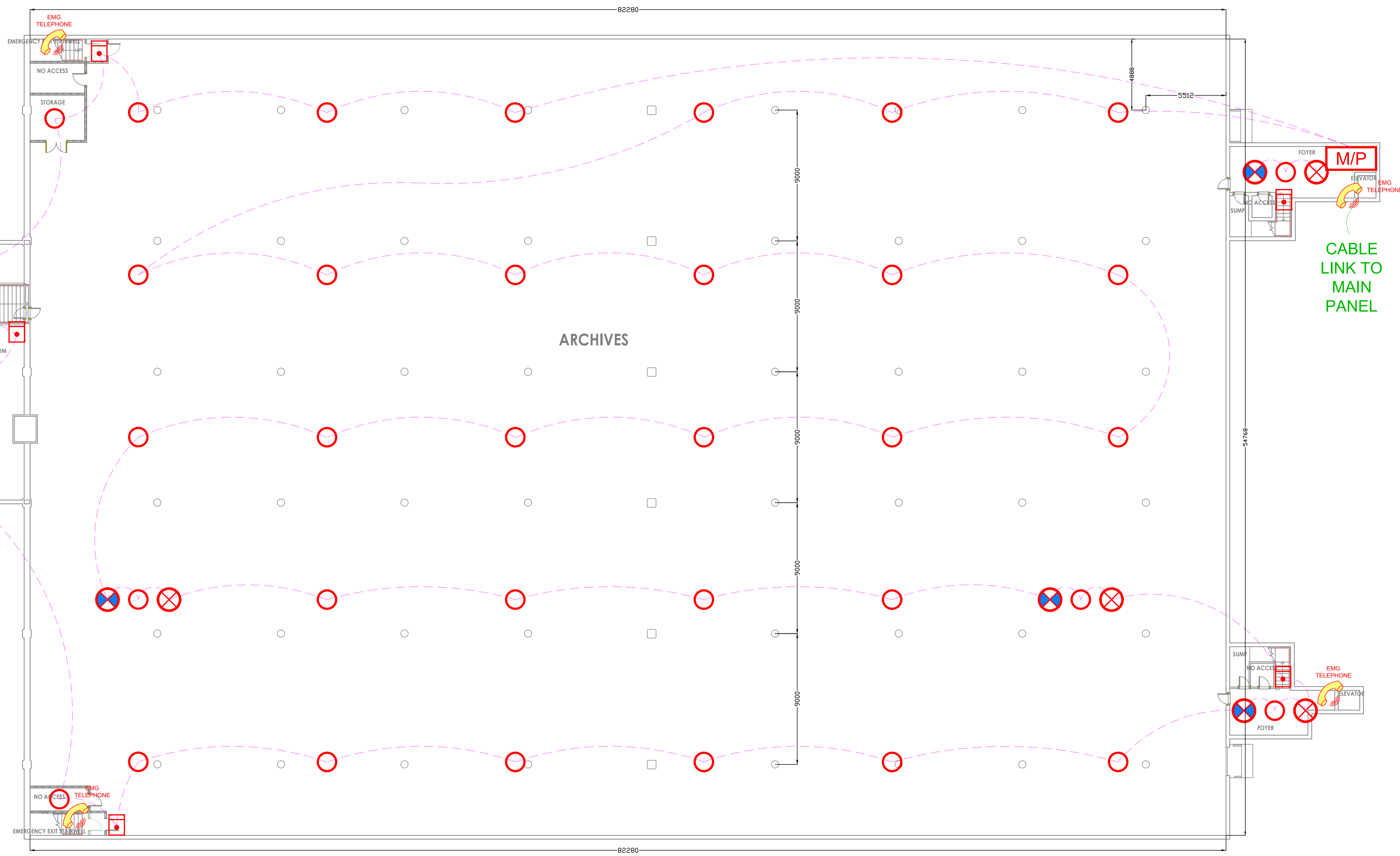
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BASEMENT & PLANTROOM FLOOR LEVEL FIRE DETECTION LAYOUT

DATE: 02/09/2022 SCALE: N.T.S.

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